

What is claimed is:

1. A telephone call processing method, comprising the  
2 steps of:

3 operating a telephone switch to provide a call,  
4 requesting information, to an automated call processing  
5 device, coupled to the switch, which serves as an  
6 automated operator position;

7 operating the automated call processing device  
8 to collect call related information;

9 operating the automated call processing device  
10 to instruct the switch to transfer the call to a second  
11 operator position for additional call processing and to  
12 transfer at least some of the collected call related  
13 information to the second operator position.

1 2. The method of claim 1, further comprising the step  
2 of:

3 operating the automated call processing device to  
4 perform a speech recognition operation on speech received  
5 from the caller.

1 3. The method of claim 2, further comprising the step  
2 of:

3 prompting the caller for city and listing  
4 information.

1 4. The method of claim 2, further comprising the step  
2 of:

3 using the results of the speech recognition  
4 operation to initiate a database look-up operation.

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1       5. The method of claim 4, wherein the collected call  
2       related information transferred to the second operator  
3       position includes at least some data returned to the  
4       automated call processing device in response to the  
5       database look-up operation, the step of transferring at  
6       least some data to the second operator position including  
7       the step of transmitting data from the automated device  
8       to the second operator position over a data link, that is  
9       separate from the telephone switch, which couples the  
10      automated call processing device to the second operator  
11      position.

1       6. The method of claim 5, wherein the transfer of at  
2       least some of the collected call related information is  
3       performed in response to a signal from the second  
4       operator position.

1       7. The method of claim 1, wherein the transfer of at  
2       least some of the collected call related information is  
3       performed in response to a signal from the second  
4       operator position.

1       8. The method of claim 5, further comprising the step  
2       of:

3               recording at least some audio information  
4       provided by the caller to the automated call processing  
5       device; and

6               wherein the collected call related information  
7       transferred to the second operator position includes  
8       recorded audio information.

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1       9. The method of claim 8, further comprising the step  
2       of:

3 processing audio information provided by the  
4 caller to remove silence therefrom prior to recording.

1 10. The method of claim 9, further comprising the step  
2 of:

3 performing compression on the audio information  
4 provided by the caller prior to recording.

11. A call processing method, comprising the steps of:

2 receiving a call at a telephone switch;

3 connecting the call to an automated call

4 processing device coupled to the switch;

5 operating the automated call processing device  
6 to interactively collect data from the caller;

7 operating the switch to transfer the call from  
8 the automated call processing device to an operator

9 position; and

10 forwarding at least some of the

11 collected data to the operator position.

1       12. The method of claim 11, further comprising the step  
2       of:

3 operating the automated call processing device to  
4 perform a speech recognition operation on speech received  
5 from the caller.

1       13. The method of claim 12, further comprising the step  
2       of:

3               providing an audio prompt to the caller requesting  
4       information from the caller.

1       14. The method of claim 13, further comprising the step  
2       of:

3               using the results of the speech recognition  
4       operation to initiate a database look-up operation.

1       15. The method of claim 11, wherein the transfer of at  
2       least some of the collected call related information is  
3       performed in response to a signal from the operator  
4       position.

1       16. A method of providing information to a caller,  
2       comprising the steps of:

3               receiving a call at a telephone switch;

4               connecting the call to an automated call  
5       processing device coupled to the switch;

6               operating the automated call processing device  
7       to perform a first database look-up operation using call  
8       information provided by the switch; and

9               providing information obtained using the  
10      results of the first database look-up operation to the  
11      caller.

1       17. The method of claim 16,  
2                wherein the automated call processing device is  
3        an unmanned device;  
4                wherein the call information is automated  
5        number identification information; and  
6                wherein the first database look-up operation is  
7        an automated number identification look-up operation  
8        which returns information on the location from which the  
9        call was placed.

1       18. The method of claim 17, further comprising the steps  
2        of:

3                performing a second database look-up operation;  
4        and  
5                wherein the step of providing information to  
6        the caller, includes the step of providing to the caller  
7        information generated from information returned to the  
8        automated device in response to the first and second  
9        look-up operations.

1       19. The method of claim 18, further comprising the step  
2        of:

3                receiving from the caller a telephone number  
4        corresponding to a destination which the caller is trying  
5        to reach, the second database look-up operation being  
6        performed using the telephone number information received  
7        from the caller.

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1       20. The method of claim 17, further comprising the steps  
2       of:

3 performing a second database look-up operation  
4 using telephone number information provided by the caller  
5 corresponding to a telephone located at a destination to  
6 which the caller is seeking directions; and

7           wherein the step of providing information to the  
8    caller, includes the step of providing to the caller  
9    information returned to the automated device in response  
10   to the second look-up operation.

1       21. The method of claim 20, wherein the step of  
2       providing information to the caller includes the step of  
3       faxing directions to a telephone number specified by the  
4       caller.

1 22. The method of claim 18, wherein the second look-up  
2 operation is a directional database look-up operation.

1       23. The method of claim 18, wherein the second look-up  
2       operation is a restaurant database look-up operation.

1 24. The method of claim 18, wherein the step of  
2 providing information obtained using the results of the  
3 first database look-up operation to the caller includes  
4 the step of:

5 using a text to speech device coupled to the  
6 automated device and to the switch to provide audio  
7 information to the caller.

1       25. The method of claim 18, wherein the step of  
2       providing information obtained using the results of the  
3       first database look-up operation to the caller includes  
4       the step of:

5                using a text to speech device included in the  
6       automated device to provide audio information to the  
7       caller.

1       26. A call processing method, comprising the steps of:  
2                receiving a call at a telephone switch;  
3                connecting the call to a manned operator  
4       position;

5                operating the manned operator position to  
6       interactively collect data from the caller; and  
7                operating the switch to transfer the call from  
8       the manned operator position to an automated call  
9       processing device serving as an automated operator  
10      position; and

11               operating the automated call processing device  
12      to service the call.

1       27. The call processing method of claim 26, wherein the  
2       step of operating the automated call processing device to  
3       service the call includes the step of:

4                instructing the switch to complete the call to an  
5       enhanced service provider.

1       28. The call processing method of claim 26, wherein the  
2       step of operating the automated call processing device to  
3       service the call includes the step of:

4                   operating the automated call processing device to  
5                   perform a database look-up operation.

1       29. The call processing method of claim 28, wherein the  
2                   step of operating the automated call processing device to  
3                   service the call includes the step of:

4                   instructing the switch to transfer the call to  
5                   another operator position.

1       30. The call processing method of claim 27,  
2                   wherein the step of operating the automated  
3                   call processing device to service the call includes the  
4                   step of:

5                   instructing the switch to perform a billing  
6                   operation.

1       31. The call processing method of claim 26, further  
2                   comprising the step of:

3                   operating the automated call processing device  
4                   to receive at least some of the interactively collected  
5                   data from the manned operator position.

1       32. The call processing method of claim 31, further  
2                   comprising the step of transferring at least some of the  
3                   interactively collected data from the manned operator  
4                   position to the automated call processing device via a  
5                   data link that couples the manned operator position and  
6                   call processing device without passing through the  
7                   telephone switch.

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